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**Catch and effort statistics for the giant scallop
(*Placopecten magellanicus*) fishery in the southern Gulf
of St. Lawrence - historical review from 1923 to 1989.**

M. Lanteigne and L.-A. Davidson

Science Branch
Department of Fisheries and Oceans
Gulf Fisheries Centre
P.O. Box 5030
Moncton, New Brunswick
E1C 9B6

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ABSTRACT

Lanteigne, M. and L.-A. Davidson, 1991. Catch and effort statistics for the giant scallop (*Placopecten magellanicus*) fishery in the southern Gulf of St. Lawrence - historical review from 1923 to 1989. Can. Tech. Rep. Fish. Aquat. Sci. 1804: 59 p.

The first giant scallop (*Placopecten magellanicus*) landings in the Gulf of St. Lawrence were officially recorded in the early 1900's. Prior to 1940, scallop landings records were sporadic but increased after the second world war. Peaks were observed in 1956 and 1957 (117 t and 115 t respectively), and were followed by a drop in 1960 (6 t). The most important landings occurred in 1970 (697 t). Since 1975, landings leveled off, varying between 161 t to 364 t annually. Landed values did not follow the same trends, mainly because of a sudden increase in price offered to fishermen by registered buyers, from early 1970's to 1986.

The giant scallop fisheries statistics were compiled by fishing area and province, for the different landing types (scallop meats, live scallops and scallop roes) and for the different sale slip (or sale transaction) types (standard, supplementary B's and supplementary A's). The landed quantities and values for the different types of landings are presented from 1968 to 1989. Most of live scallop and scallop roe landings were recorded in fishing areas having a summer fishing season.

Landings indicated on supplementary B sale slips (local sales estimates, not sold to registered buyers) are presented from 1982 to 1989. These estimated landings increased notably from 1982 to 1989. The highest proportions of landings reported on supplementary B sale slips were observed in Nova Scotia, ranging from 56.0% to 87.7% of the total scallop meat landed between 1986 and 1989.

The fishing effort was estimated by counting the number of active fishing vessels and the number of standard sale slips reported. The annual fishing effort ranged from 325 to 453 fishing vessels and from 3111 to 4815 sale slips between 1986 and 1989. The fishing effort was the highest in fishing areas 22 and 24.

Key words: giant scallop, *Placopecten magellanicus*, landings, catch, effort, Gulf of St. Lawrence, multi-year review.

RÉSUMÉ

Lanteigne, M. and L.-A. Davidson, 1991. Catch and effort statistics for the giant scallop (*Placopecten magellanicus*) fishery in the southern Gulf of St. Lawrence - historical review from 1923 to 1989. Can. Tech. Rep. Fish. Aquat. Sci. 1804: 59 p.

Les premiers débarquements officiels de pétoncle géant (*Placopecten magellanicus*) dans le Golfe du Saint Laurent ont été rapportés au début des années 1900. Avant 1940, les débarquements officiels de pétoncles étaient sporadiques mais, après la seconde guerre mondiale, ces derniers ont augmentés. Des maximums ont été observés en 1956 et 1957 (117 t et 115 t respectivement) et ont été suivis par une chute en 1960 (6 t). Les plus importants débarquements ont survenu en 1970 (697 t). Les valeurs au débarquement n'ont pas suivies les mêmes tendances, en raison d'une augmentation subite du prix offert aux pêcheurs par des acheteurs enregistrés, à partir du début des années 1970 jusqu'à 1986.

Les statistiques de pêche du pétoncle géant ont été compilées par districts de pêche et provinces ainsi que pour les différents types de débarquements (muscles de pétoncles, pétoncles vivants et gonades de pétoncles) et les différents types de récipissés d'achat (ou transactions d'achat: standards, supplémentaires B et supplémentaires A). Les quantités et valeurs au débarquement des différents types de débarquements sont présentées pour les années 1968 à 1989. La majorité des débarquements de pétoncles vivants et de gonades de pétoncles a été rapportée dans les districts de pêches ayant des saisons de pêche estivales.

Les débarquements indiqués sur récipissés supplémentaires B (estimations de ventes locales à des acheteurs non enregistrés) sont présentés pour les années 1982 à 1989. Ces débarquements estimés ont augmenté de façon appréciable de 1982 à 1989. Les plus importantes proportions de débarquements rapportés sur récipissés supplémentaires B sont observées en Nouvelle-Écosse et ont varié de 56.0% à 87.7% du total des débarquements de muscles de pétoncles entre 1986 et 1989.

L'effort de pêche a été estimé en comptant le nombre de bateaux de pêche actifs et le nombre de récipissés d'achat standards rapportés. L'effort annuel a varié de 325 à 453 bateaux de pêche et de 3111 à 4815 récipissés d'achat, entre 1986 et 1989. L'effort de pêche a été le plus élevé dans les districts de pêche 22 et 24.

Mots clés: pétoncle géant, *Placopecten magellanicus*, débarquements, captures, effort, golfe du Saint Laurent, revue pluriannuelle.

INTRODUCTION

The giant scallop (*Placopecten magellanicus*) fishery in the southern Gulf of St. Lawrence has always been a complementary fishery to the lobster and herring fisheries, which are often considered as the major coastal fisheries. Scallop fishermen usually hold more than one fishing licence, allowing them to harvest different species. The scallop fishery is presently an important component of the overall coastal fishing activities in the southern Gulf and is an important contributor to the economy of coastal areas. Since 1980, giant scallop landings have ranged from 175 to 250 t annually (meat or adductor muscle weight), contributing two to three million dollars to the local economy.

There is little historical information on the giant scallop fishery for the Gulf of St. Lawrence. The first giant scallop official landing statistics in the southern Gulf can be found in the early 1900's. At that time, the fishery was characterized by notable annual landing fluctuations. During those years, the fluctuations were probably the result of an irregular fishing fleet, coming mainly from outside the Gulf region, and the difficulty of collecting and recording landing statistics. In the early 1960's, the landing statistics data acquisition program expanded, resulting in improved quality and quantity of data collected. Since 1984, landing statistics have been compiled for each sale transaction conducted. The quantity fished (catch) and the number of vessels involved in the fishery (effort) can now be estimated.

An historical overview of the giant scallop landing statistics in the southern Gulf of St. Lawrence, is presented for the years 1923 to 1989, with a detailed analysis for the years 1968 to 1989. The catch and effort data were classified and grouped to provide detail information for each province and fishing area. The information presented will be useful for fishery biologists, economists, fishery managers and the industry.

MATERIALS AND METHODS

Fisheries statistics are obtained by compiling the data recorded on special sale transaction receipt forms (or "sale slips"), when a fish product (fish, molluscan, crustacean) is sold by a fisherman to a registered buyer. The scallop landings statistics from 1923 to 1967 were gathered from the Fisheries Statistics of Canada - Annual Reports. For 1968 to 1989, the original computerized data files were used.

Geographic categories

The giant scallop landing statistics presented are for the southern gulf of St. Lawrence (NAFO area 4T), which is bordered by the provinces of Nova Scotia, New Brunswick and Prince Edward Island (Figure 1). The region is divided into four (4) scallop fishing areas, which are managed individually, and further sub-divided into statistical districts. The smallest geographical unit used in the present report is the statistical district. Sale slip data were compiled and sorted by statistical district, as indicated by the landing site. The statistical districts were grouped into fishing area and province categories (Table 1). The landings recorded in district 88, which are shared between fishing areas 23 and 24, were included in district 24 only.

Product types and sales slip types

Prior to 1967, scallop landings were reported as scallop meat (adductor muscle). Since 1967, the fisheries statistics identify three (3) types of scallop landings (products): meat, roe and live (Tables 2 and 3).

Landings for the years 1923 to 1946 were compiled for each province and the landings reported in units of "gallon of scallop meat" were converted to kilograms of meat by using a multiplicative factor of 4.6721 (1 gallon of scallop meat = 10.3 pounds, 1 pound = 0.4536 kg). From 1947 to 1989, the fisheries statistics were compiled for each statistical district, fishing area and province, and landings reported in pounds were converted to kg using a multiplicative factor of 0.4536

Since 1968, the Program Coordination and Economics Branch (section of Statistics and Electronic Data Processing Systems) had compiled landings by landing type (Tables 2 and 3) and converts landings into a common landing type which is equivalent to the live type. Meat weight is converted to live weight using a multiplier of 8.3. The scallop roe landings are considered as live weight landings and the conversion factor is not applied. In this review, the detailed analysis of the scallop landing statistics from 1968 to 1989 was conducted on the landed quantities in their original landing types rather than the converted live weight type.

In 1982, the fisheries statistics data acquisition program was further modified. Sale transactions were classified in three (3) types; "standard", "supplementary B" and "supplementary A" (Table 4). The Commercial Fishing Vessel (CFV) number for each vessel was also recorded on each sale transaction form. Therefore, it was possible to estimate the number of vessels involved in the fishery. This last modification was not fully implemented until 1985.

All landing statistics are presented in kilograms, in their landed forms (Table 3), as recorded on the sale transaction. To reduce rounding errors, conversion from pounds to kg were expressed to the nearest 0.1 kg. The landings compiled by district and province were rounded to the nearest kg.

Landed value and average price.

From 1968 to 1983, the average price/kg offered to the fishermen was calculated for each statistical district by using the data compiled on a monthly basis. From 1984 to 1989, the average price/kg was calculated by using the information available on each sale slip. The information compiled for each statistical district was used to calculate the landed value and average price/kg by fishing area and province. The type of landings and the type of sale slips were analysed separately.

Estimates of fishing effort.

The number of vessels involved in fishing activities and the number of sale transactions for each vessel were estimated for the years 1985 to 1989, by sorting the fisheries statistics by CFV numbers. The results were grouped for each fishing area and province where scallop products were landed. The information was compiled and used to construct sale transactions frequency tables.

RESULTS AND DISCUSSION

From 1923 to the early 1980's, the scallops sold in one particular fishing area did not imply that they were caught in the same fishing area. Fishermen were allowed to fish in the entire Gulf of St. Lawrence. Therefore, it is impossible to locate the source of the catches. In the early 1980's, new legislations were put in place to confine fishing activities of each fisherman to one particular fishing area. For the present analysis, it was assumed that the scallops sold in one fishing area were caught in the same fishing area. It is known that fishermen are still allowed to sell scallops in any district they choose, but it is not a common practice.

The historical fisheries statistics are compiled and summarized for three geographical entities:

- Entire southern Gulf
- By fishing area
- By province.

The landed quantities, landed values, prices per unit of weight and number of sale slips by statistical district, are presented in Appendix I.

Scallop meat landings - 1923 to 1989.

The fisheries statistics from 1923 to 1989, for the entire southern Gulf, are presented in the Figures 2 and 3. Prior to 1940, the giant scallop landings in the southern Gulf of St. Lawrence were sporadic, but increased after the second world war (1945). It is assumed that the southern Gulf scallop fishery and the fleet were getting more structured.

Landings reached a first peak in 1956 and 1957, with 117 t and 115 t of scallop meat per year respectively. The peak was followed by a dramatic drop to 6 t in 1960. The decrease could have been the result of a decrease in fishing effort. Similar decreases in the Gulf of St. Lawrence, but with less amplitude, have also been described by Dickie and Medcof (1963) as the result of mass mortalities of scallops caused by lethally high water temperatures. Mass mortalities observed by these authors were mainly in the Northumberland Strait, in the area including the present fishing area 22 and 24. Following the low landings from 1960 to 1963, scallop meat landings increased in areas 22 and 24 and started to be recorded in districts 21 and 23 (Figures 4 and 5). By 1970, the landings for the entire southern Gulf of St. Lawrence had reached 697 t. Afterward, landings decreased steadily and since 1975, landings have varied between 161 to 364 t.

The landed values did not follow the same trends as the landings of scallop meat (Figure 3). From 1968 to 1980, landed values fluctuated from 0.6 to 1.8 million dollars but jumped to 3.5 million dollars in 1981. This sudden increase was mainly due to the increasing price/kg offered to the fishermen, which began to increase in 1978. Substantial decreases in landed values in 1988 and 1989 were due to a combination of decreased catches and lower price/kg.

The landed quantities and values for each fishing area are presented in Figures 4 and 5 respectively. The general trends of the variation of scallop meat landed quantities and values

for district 21, 22 and 24 are similar to the trends observed for the entire southern Gulf. The landed quantities in district 23 (Figure 4) do not follow the general trends mainly due to sporadic fishing effort. A notable quantity of scallop meat was landed in 1965, 1981 and 1985 from district 23. In the 1980's, the higher price offered for the product probably motivated the fishermen.

The general trends of scallop meat landed quantities and values by province are similar to those for the entire southern Gulf of St. Lawrence (Figures 6 and 7). Most of the scallop meat was landed, almost equally, in the province of New Brunswick and Prince Edward Island (Figure 7). Since 1970, landings in Nova Scotia have been notably lower than the other provinces.

Live scallop and scallop roe landings - 1968 to 1989.

Starting in 1967, live scallops and scallop roe landings have been recorded. However, due to technical difficulties with the data for 1967, the information analyses started in 1968.

Landings of live scallop and scallop roe have been sporadic for the southern Gulf. Prior to 1970, notable amounts of live scallops were landed in every fishing area and province (Tables 5 and 6). From 1971 to 1989, small quantities of live scallops were recorded and scallop roe landings were recorded in 1979 (Table 6). The scallop roe landings have been recorded almost exclusively in district 21, in the province of New Brunswick.

Most of the scallop roe and live scallop landings are recorded in fishing areas having a summer fishing season. From early spring to summer (July - August), the scallops are developing their gonad (or roe) in preparation for spawning in August - September (Bourne, 1964). The market demand is for a plump and firm roe, which coincides with peak development.

Scallop meat supplementary B's and A's landings - 1982 to 1989.

Since 1982, the Department of Fisheries and Oceans field staff have provided estimates of the quantity and value of scallop products sold outside the network of registered buyers (i.e. local sales). These estimates of scallop meat landed are called supplementary B's. The detailed information for each district and landing type is presented in Appendix II.

The proportion of scallop meat supplementary B landings has increased since 1982. Estimates of the quantity of scallop meat landed by fishing area represent from 28.2% to 46.9% of the total scallop meat landed in 1989 (Figure 8). For the provinces, supplementary B landings follow the same trend as observed for the fishing areas (Figure 9). Nova Scotia shows the highest proportions of supplementary B landings, ranging from 56.0% to 87.7% between 1986 to 1989 (Figure 9).

The high proportions of Supplementary B's for Nova Scotia are certainly the result of socio-economic factors. Following discussions with DFO representatives and fishermen in Nova Scotia, it was mentioned that most of the Supplementary B's were reported during the fall fishery in district 24. Catches are sold locally, usually at a higher price than what registered buyers offer, and official records of transactions are not kept.

Supplementary A's sale slips are sporadic from year to year (Appendix II) and the total Supplementary A landings represent a negligible portion of the overall scallop landings.

Fishing effort - 1986 to 1989.

Since 1984, the CFV number has been recorded on each sale transaction form. However, the information was not recorded consistently until 1985-1986. Assuming that the landed quantity recorded on one sale slip is the catch of one fishing day and that each CFV number represents one fishing vessel, the number of sale slips and different CFV numbers can provide a rough estimate of the number of fishing days, and of the number of active fishing vessels. The calculations were conducted for the years 1986 to 1989. The number of vessels and sale transactions for the entire southern Gulf are illustrated in the Figure 10. The information by fishing area and province is presented in Appendices III and IV.

The annual number of active vessels (showing one or more sale transactions) within the southern Gulf, has ranged between 325 and 453, from 1986 to 1989 (Figure 10). The fishing effort is the most important in the fishing areas 22 and 24, where the number of active vessel fluctuates between 108 and 224 (Appendix III).

The frequency distributions of the number of active fishing vessels in relation to the number of sale transactions, show similar patterns from 1986 to 1989 (Figure 10). During 1986 to 1988, 35% to 42% of the vessels conducted 6 to 10 sale transactions per year. All reported vessels and sale transactions conducted outside the Gulf Region jurisdiction, were not considered in Figure 10 but, are presented in Appendices III and IV.

CONCLUSION

When using the scallop fishery statistics to assess the health of the fishery or to conduct a biological assessment of the scallop populations, care should be given to the quality of the information used. The historical and more recent landing data available from official reports, have presented landings without considering the different types of sale slips. As discussed earlier, since 1984, a portion of the landings reported in the official statistics, are estimates (supplementary B's). It is presently impossible to validate these estimates and the use of landing values, without considering the estimated portion, may lead to erroneous interpretations.

Not knowing or considering the different types of landings is another source of error when using the scallop fishery statistics. The majority of the official fishery statistics reports have presented landings in scallop meat weights or scallop live weights. The 8.3 conversion factor used to transform meat weights into live weights can be considered as a good biological approximation of the total animal weight-meat weight ratio. However, using the same factor to convert scallop roe landings into meat weights is probably not reliable.

Users of fisheries statistics should be aware of their needs and options. If an overview of the landings is required, the information generally provided by the Program Coordination and Economics Branch would be adequate. If detailed information on the catch is required, then the information can be obtained by sorting landing types and sales slip type. The effort information is presently estimated in terms of number of active fishing vessels and number of sale transactions. However, the effort information must be used with caution. These estimates do not include the estimated portion of the landings (supplementary B's) and may not be representative of the fishing areas and provinces where there are high estimated landings.

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REFERENCES

- BOURNE, N., 1964. Scallops and the offshore fishery of the maritimes. Bull. Fish. Res. Bd. Canada, Bull. No. 145, 61 p.
- DICKIE, L.M. and J.C. MEDCOF, 1963. Causes of mass mortalities of scallops (*Placopecten magellanicus*) in southwestern Gulf of St. Lawrence. J. Fish. Res. Bd. Canada, 20 (2): 451-482.

TABLE 1. Statistical districts used to calculate quantities and values for each fishing area and province.

Fishing areas	Statistical Districts		Provinces	Statistical Districts	
21	63	68	New Brunswick	63	73
	64	70		64	75
	65	71		65	76
	66	72		66	77
	67	73		67	78
				68	80
22	45	80	Prince Edward Island	70	
	75	82		71	
	76	83			
	77			82	88
	78			83	92
23				85	93
	92	95		86	95
	93	96		87	96
24	1*	14*	Nova Scotia	1*	12
	2	46		2	13
	3	85		3	14*
	10	86		10	45
	11	87		11	46
	12	88			
	13				

* Districts which are not in the Gulf Region jurisdiction, but in which some fishermen have a scallop fishing licence allowing them to fish and to sell scallop in the Gulf Region.

TABLE 2. General description of the data and of the changes introduced to the fisheries statistics data acquisition program, from 1923 to 1989.

Years	Descriptions
1923 - 1946	The data are compiled annually by county and province. Landings are reported in "gallon of scallop meats".
1947 - 1966	The data are compiled annually by statistical district and province. Landings are reported in "pounds of scallop meats".
1967 - 1976	The data are compiled monthly by landing port, statistical district and province. Landings are reported in pounds and kilograms in computerized data bases, and the different landing types (see definition in Table 3) are identified (meat, roe or live).
1977 - 1981	The information from each sale transaction (sale slip) is compiled. Landings are reported in pounds and kilograms in computerized data bases, and the different landing types (see definitions in Table 3) are identified (meat, roe or live).
1982 - 1983	The information from each sale transaction (sale slip) is compiled. Landings are reported in pounds and kilograms in computerized data bases, by landing type (see definitions in Table 3) and sale slip type (standard, supplementary B's or supplementary A's, see definitions in Table 4).
1984 - 1989	The information from each sale transaction (sale slips) is compiled. Landings are reported in pounds and kilograms in computerized data bases, by landing type (see definitions in Table 3) and by sale slip type (see definitions in Table 4). The Commercial Fishing Vessel (CFV) number is recorded for each sale slip.

TABLE 3. Types of landings reported and recorded in the fisheries statistics data bases, since 1967.

Landing types	Descriptions
Meat	Landings consisting of scallop adductor muscles only. It implies that the scallops are shucked at sea (viscera and shells removed at sea).
Roe	Landings consisting mainly of female gonads. The product is usually sold attached to the adductor muscle.
Live	Landings consisting of scallops sold live, not shucked (often referred as "live weight or shell weight").

TABLE 4. Types of sale slips used to record sale transaction information in the fisheries statistics data bases, since 1984.

Sale transactions	Descriptions
Standard	Standard purchase slips are official records of all regular transactions between fishermen and registered buyers. A standard purchase slip is filled-in by the registered buyer with the following information: fisherman's name, fisherman's address, CFV number, place landed, date landed, buyer's identity, quantity landed, species, form landed, price and purchase value.
Supplementary B	These are landing estimations of product not sold to a registered buyer and not reported on standard sale transactions. Supplementary B's forms are used to estimate scallop products sold locally. These estimations are provided by Fisheries and Oceans representatives working in the field, mainly fishery officers.
Supplementary A	These sale transactions are conducted with a registered buyer, but not on a regular basis. The buyer will request special permission to conduct one or multiple transactions. A supplementary A transaction can include the catch of more than one fisherman and CFV numbers are often not indicated.

TABLE 5. Live scallop (A) and scallop roe (B) landings, and landed values compiled from standard sale slips, in fishing areas 21, 22, 23 and 24, from 1968 to 1989.

Years	FISHING AREA 21		FISHING AREA 22		FISHING AREA 23		FISHING AREA 24	
	t	\$ x 1000	t	\$ x 1000	t	\$ x 1000	t	\$ x 1000
1968	2.8	...	3,785.6	531.1	40.4	4.9	1,147.1	168.1
1969			0.1	0.03			157.0	18.8
1970	1.4	0.3					0.8	0.1
1971	0.3	0.08						
1972								
1973			0.7	0.07				
1974								
1975								
1976							4.3	13.2
1977			0.3	1.4			19.0	6.6
1978								
1979								
1980								
1981								
1982								
1983								
1984	4.1	50.1	11.2	172.0	0.6	7.3	3.9	42.0
1985	0.6	1.3					0.2	0.4
1986	9.9	13.1					0.2	0.4
1987								
1988			0.05	0.4			0.06	0.6
1989								

* = missing information

B

Years	FISHING AREA 21		FISHING AREA 22		FISHING AREA 23		FISHING AREA 24	
	t	\$ x 1000	t	\$ x 1000	t	\$ x 1000	t	\$ x 1000
1968								
1969								
1970								
1971								
1972								
1973								
1974								
1975								
1976								
1977								
1978								
1979								
1980	0.4	2.3	5.6	31.0				
1981	3.5	19.8						
1982	11.3	70.3						
1983	0.8	3.4						
1984	2.3	8.6						
1985								
1986	2.3	19.0	0.8	8.3				
1987	4.6	39.0						
1988	2.3	20.4						
1989	0.1	1.1	0.8	6.0				
1990	11.1	91.1						

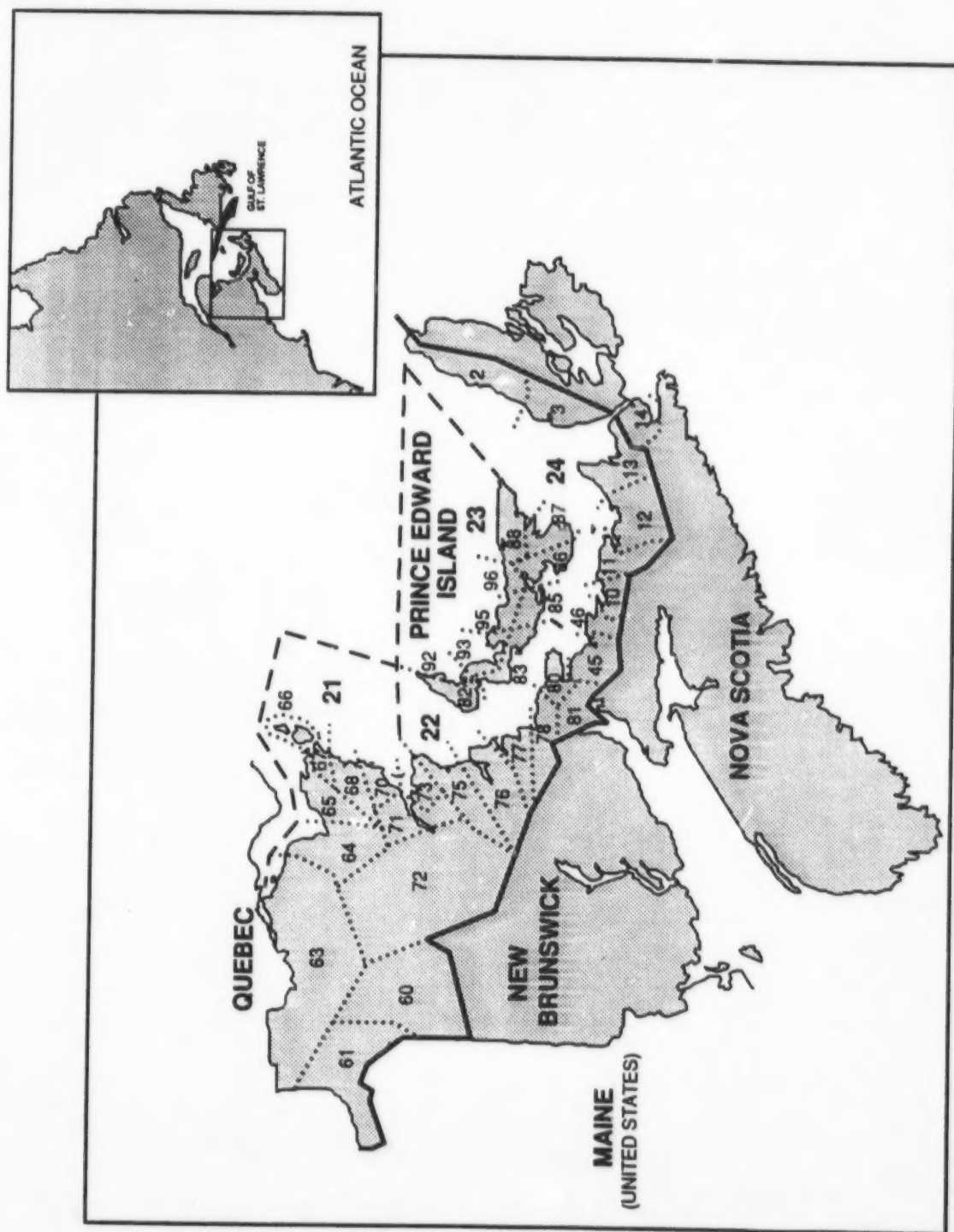


FIGURE 1. Gulf Region boundary (—), fishing areas (- - -) and statistical districts (.....) in the southern Gulf of St. Lawrence.

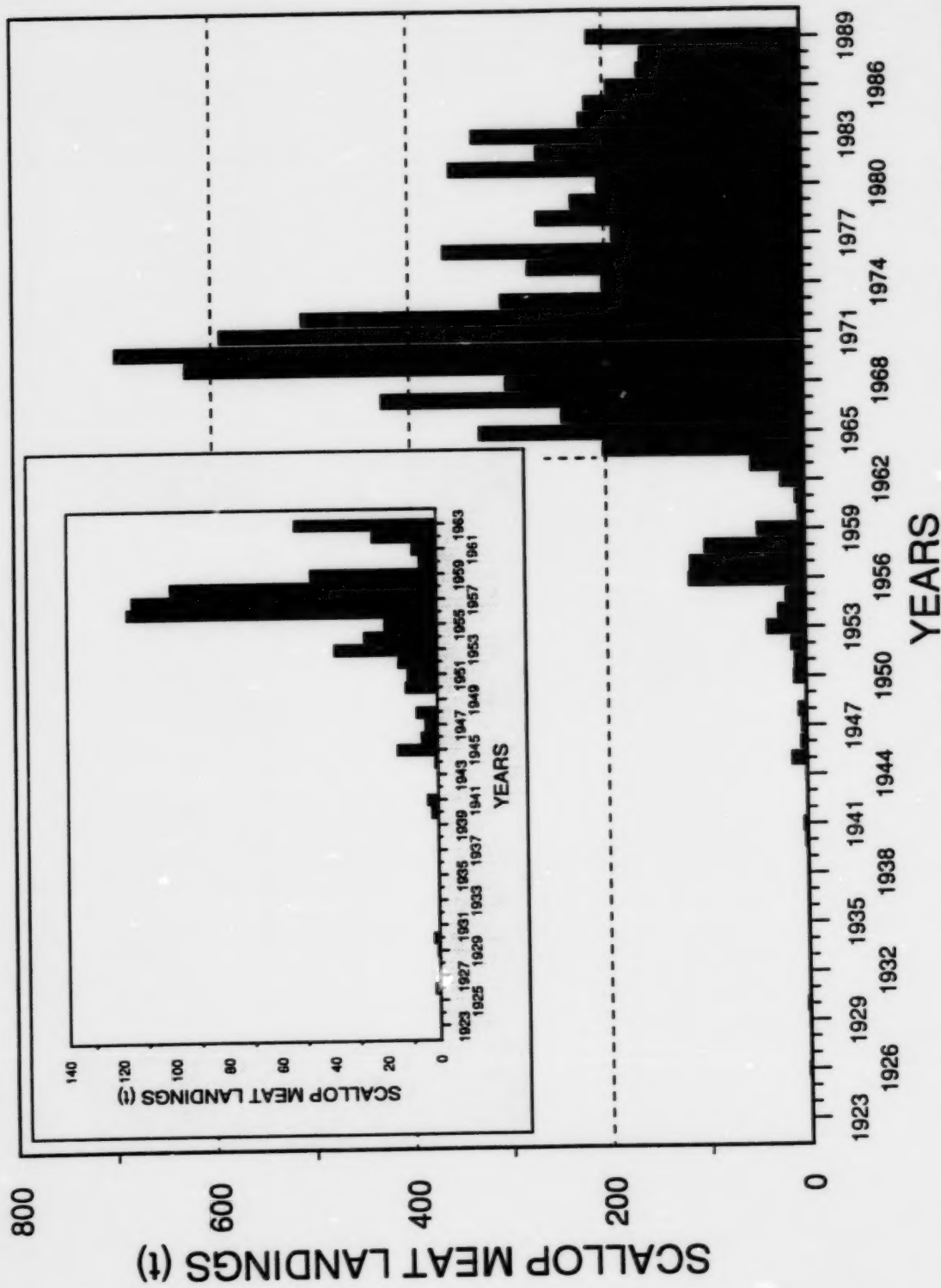


FIGURE 2. Scallop meat landings in the southern Gulf of St. Lawrence from 1923 to 1989 (Inset: detail scallop landings from 1923 to 1963).

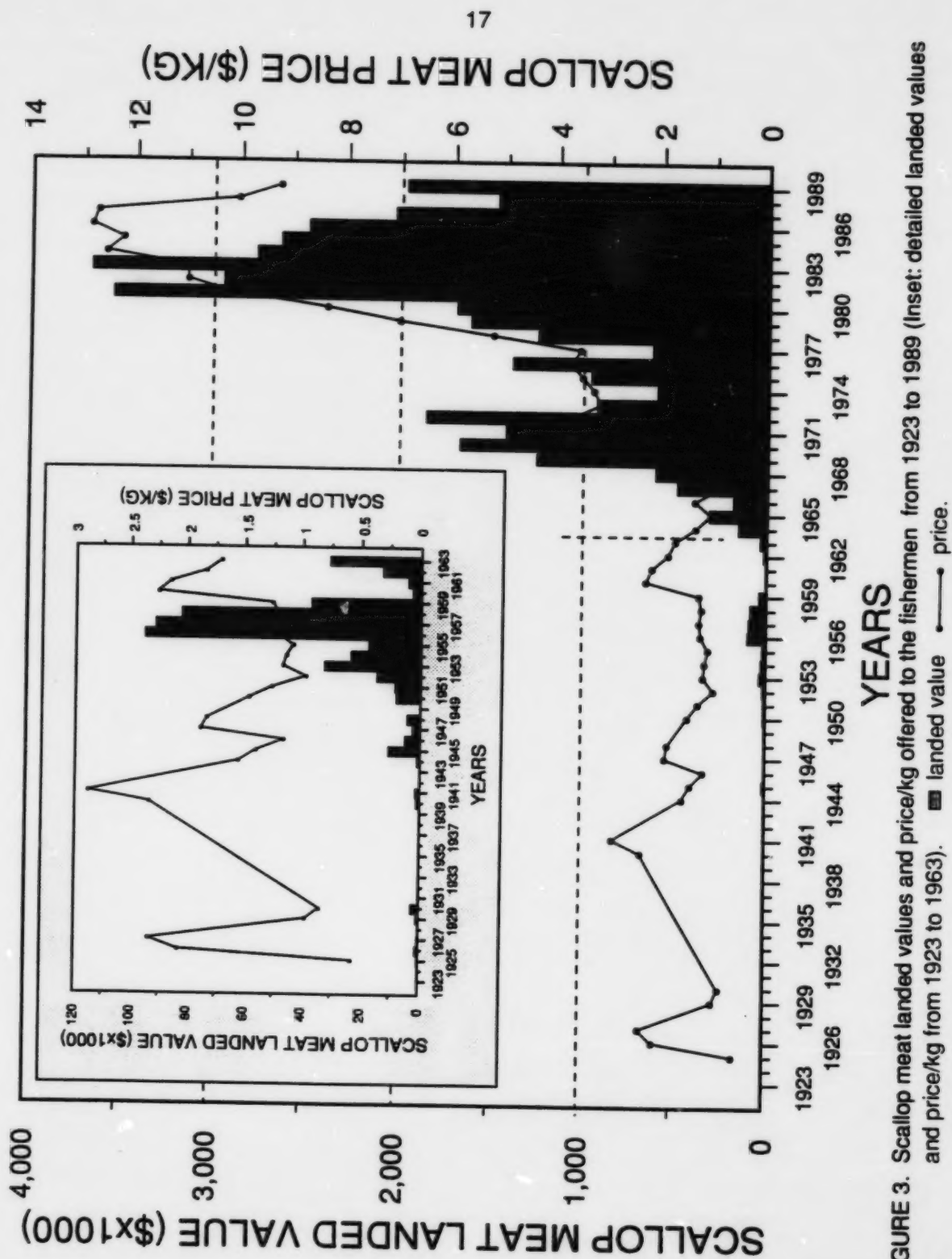


FIGURE 3. Scallop meat landed values and price/kg offered to the fishermen from 1923 to 1989 (Inset: detailed landed values and price/kg from 1923 to 1963).

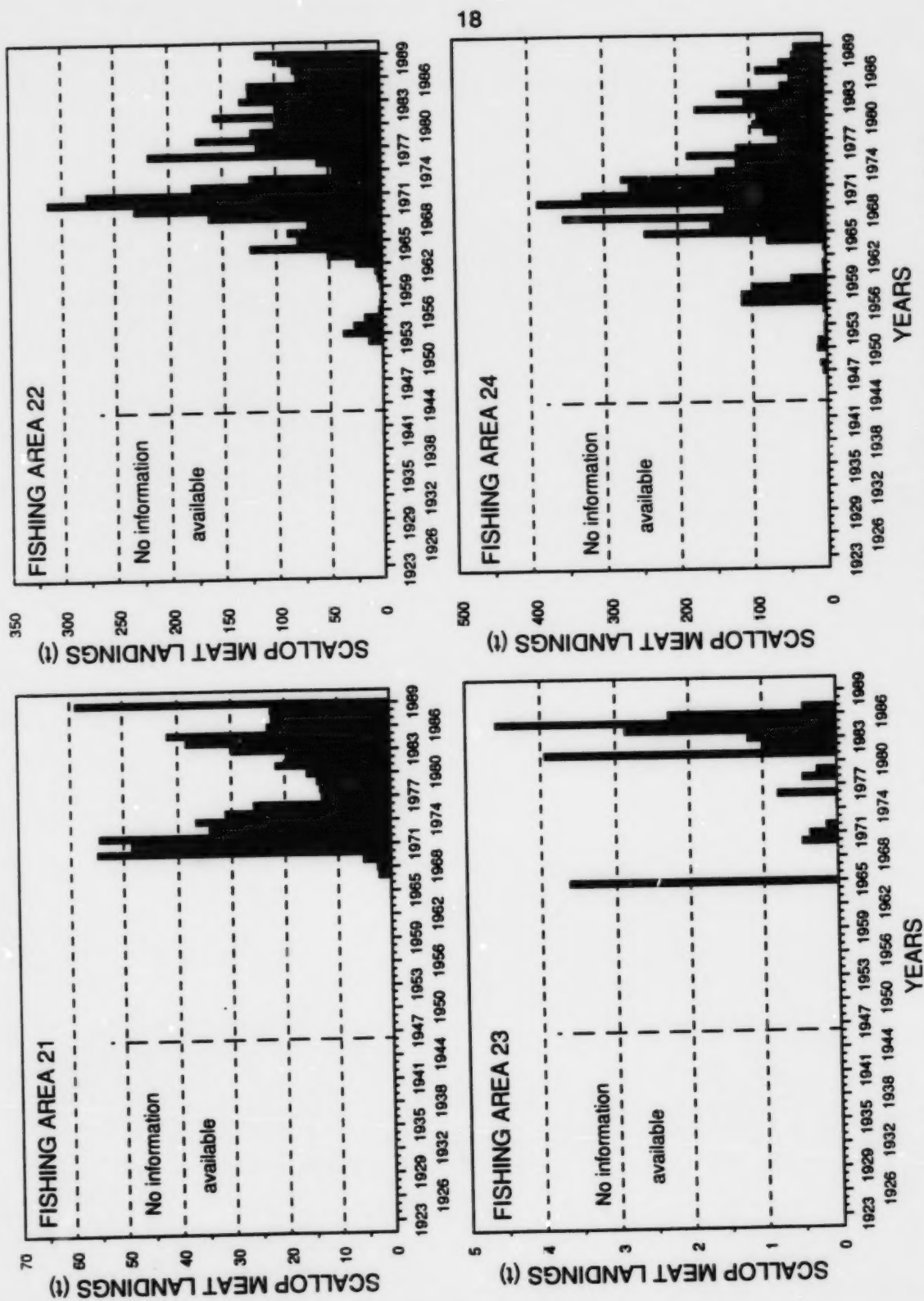


FIGURE 4. Scallop meat landings in fishing areas 21, 22, 23 and 24, from 1947 to 1989. (Prior to 1947, the landings could not be sorted by fishing area.)

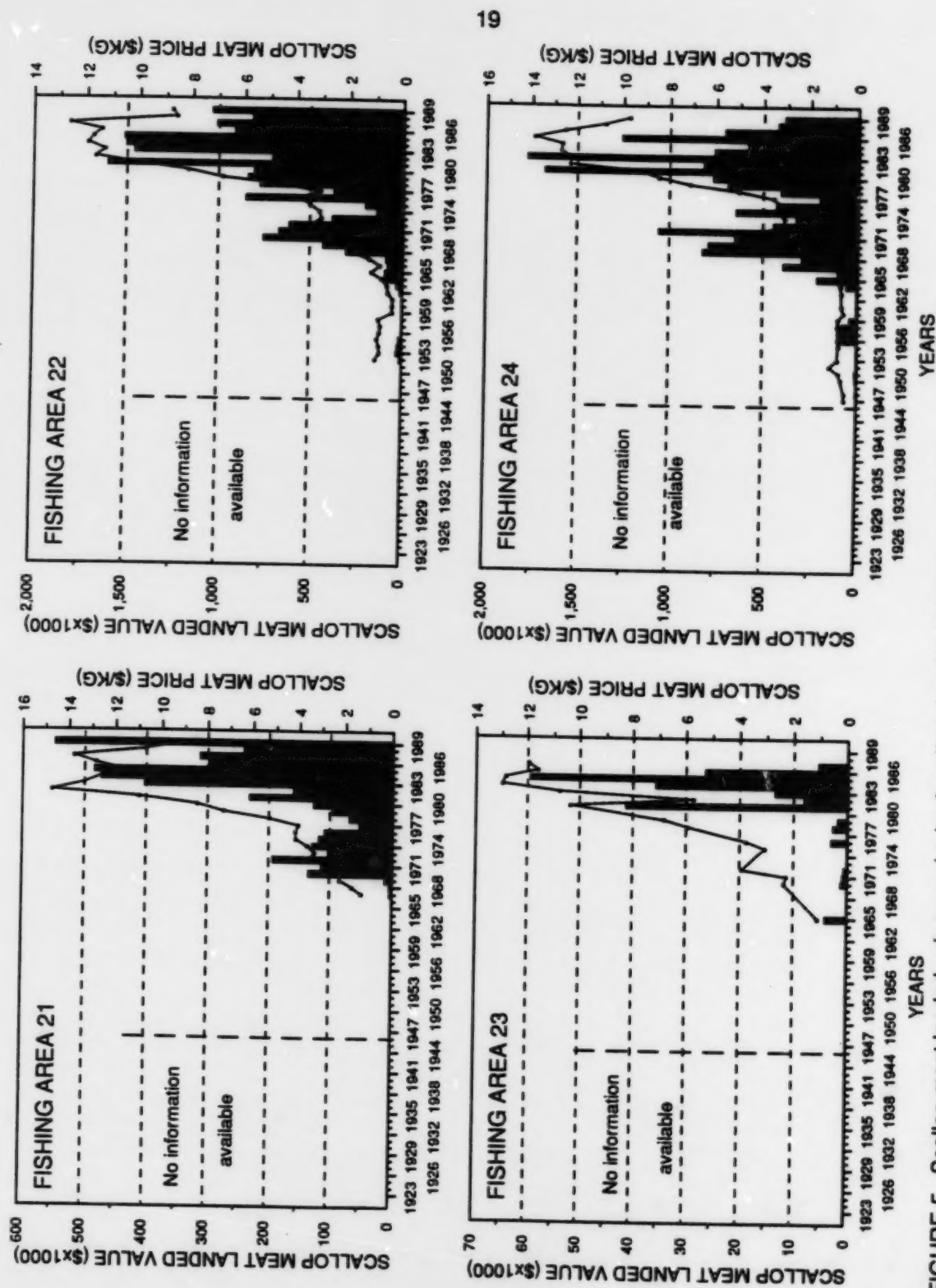


FIGURE 5. Scallop meat landed values and price/kg offered to the fishermen, in fishing areas 21, 22, 23 and 24, from 1947 to 1989. (Prior to 1947, the data could not be sorted by fishing area.) ■ landed value — price.

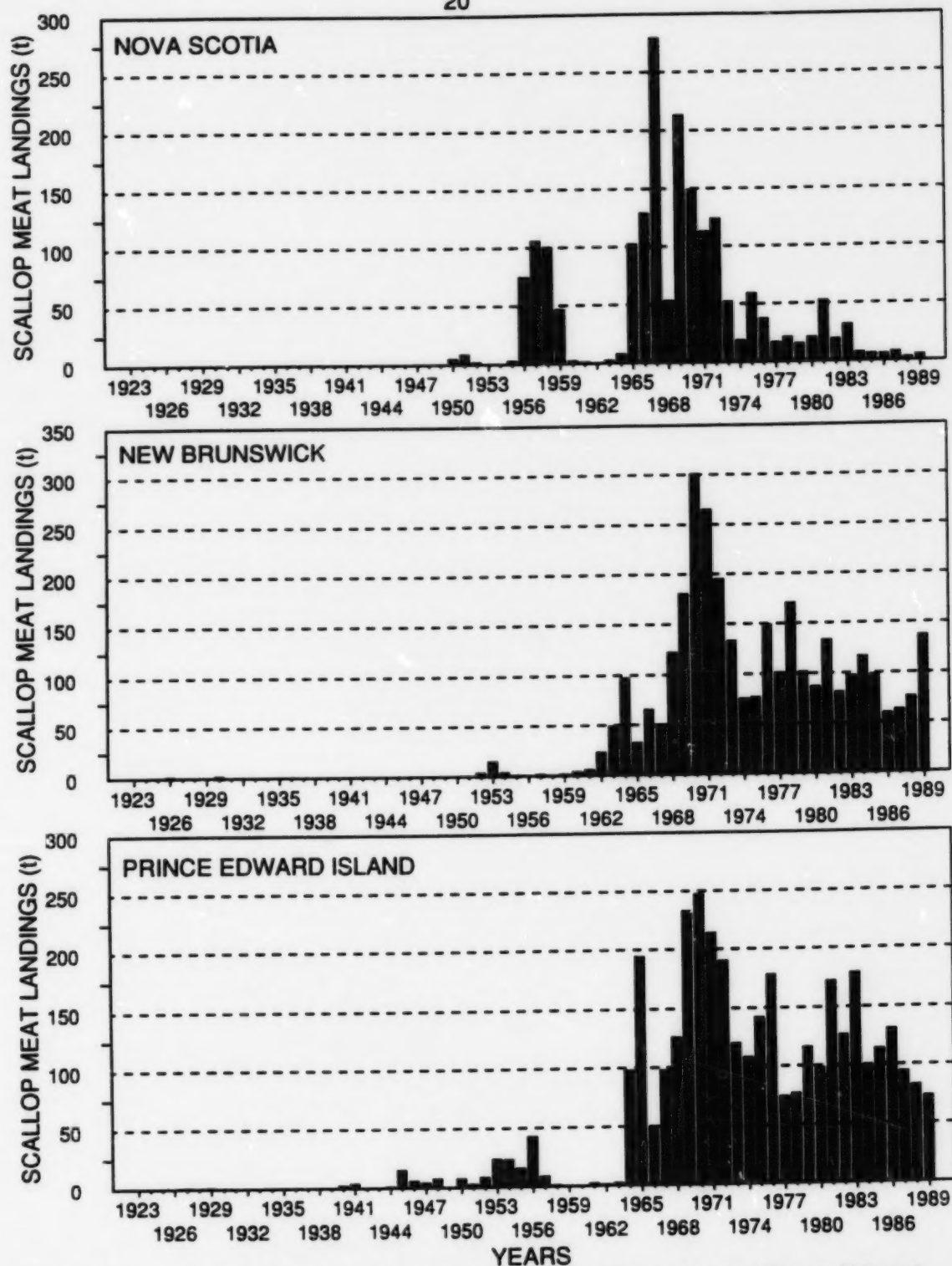


FIGURE 6. Scallop meat landings in Nova Scotia, New Brunswick and Prince Edward Island, from 1923 to 1989.

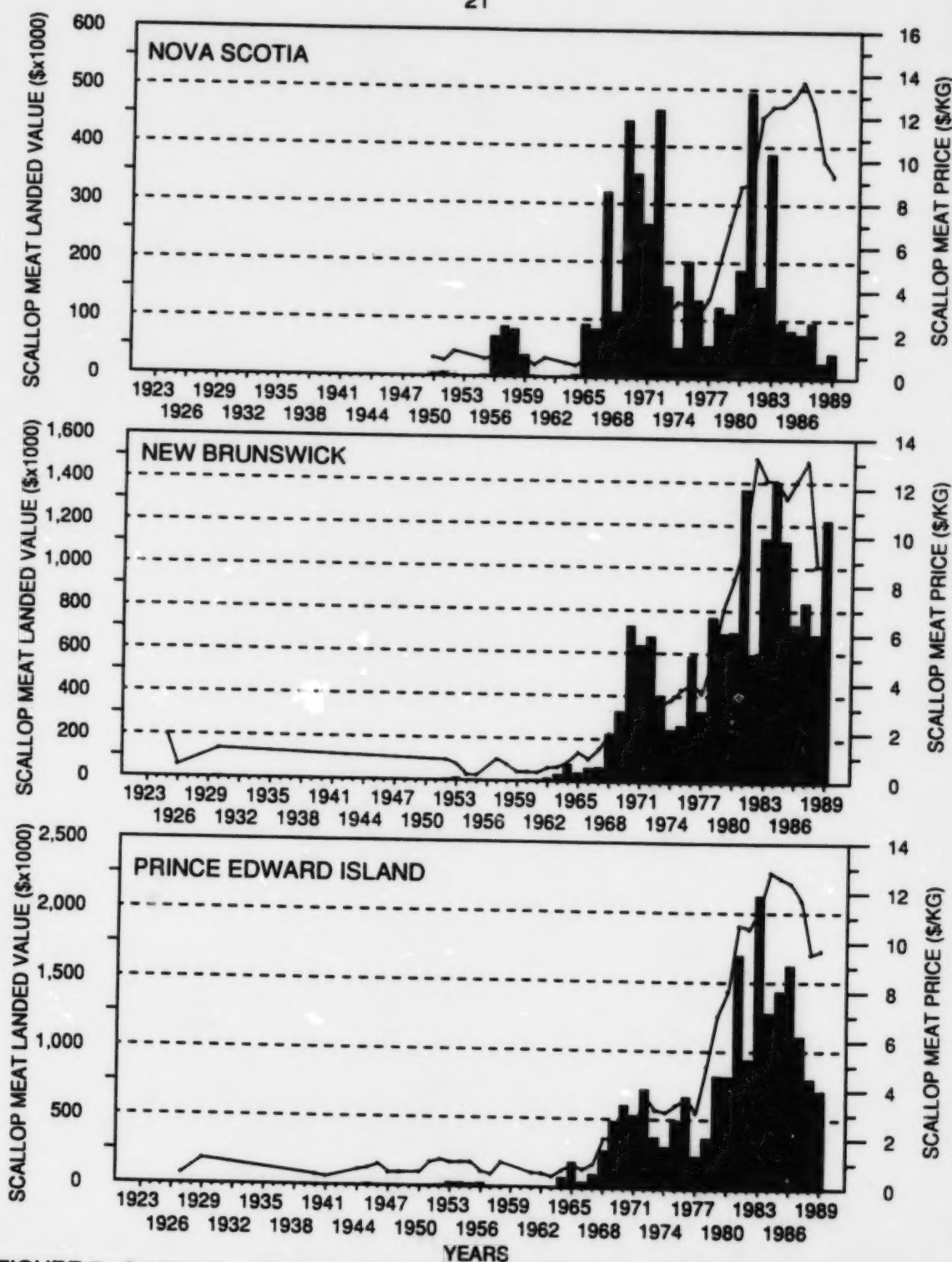


FIGURE 7. Scallop meat landed values and price/kg offered to the fishermen in Nova Scotia, New Brunswick and Prince Edward Island, from 1923 to 1989.
 ■ landed value — price.

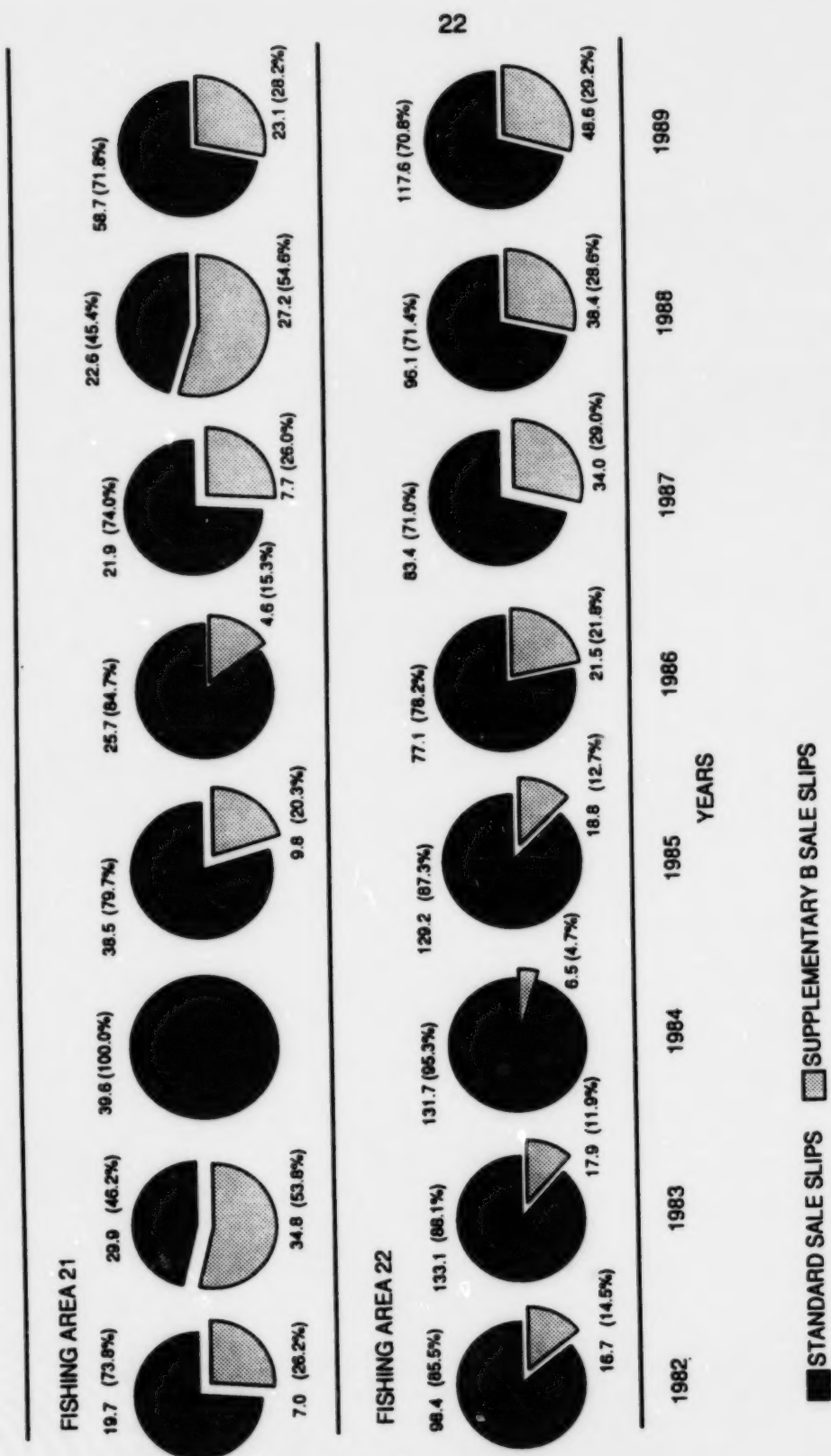
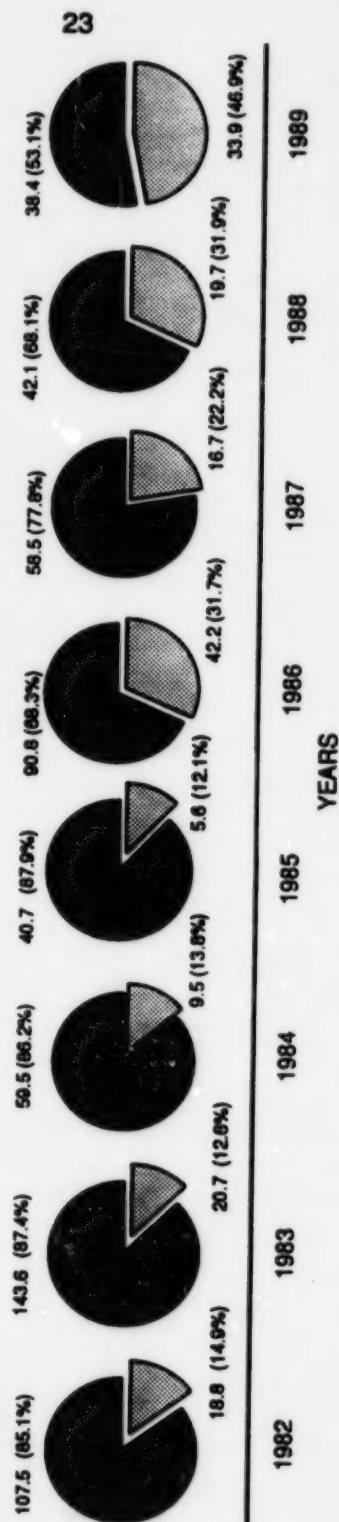


FIGURE 8. Quantities (t) and proportions of scallop meat landings reported onstandard and supplementary B sale slips in fishing areas 21, 22, 23 and 24, from 1982 to 1989.

FISHING AREA 23



FISHING AREA 24



■ STANDARD SALE SLIPS ▨ SUPPLEMENTARY B SALE SLIPS

FIGURE 8 (continued). Quantities (t) and proportions of scallop meat landings reported on standard and supplementary B sale slips in fishing areas 21, 22, 23 and 24, from 1982 to 1989.

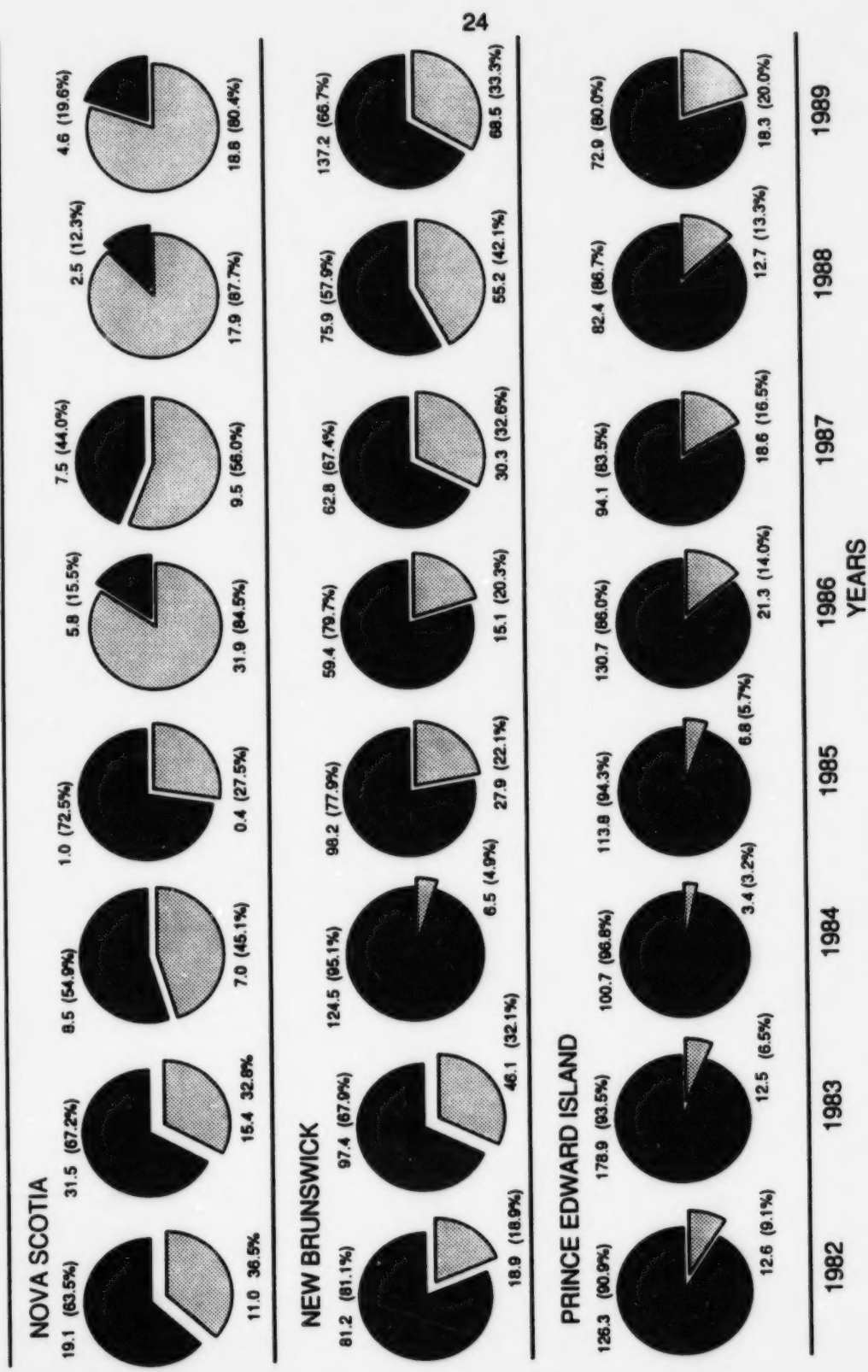


FIGURE 9. Quantities (t) and proportions of scallop meat landings reported on standard and supplementary B sale slips in Nova Scotia, New Brunswick and Prince Edward Island, from 1982 to 1989.

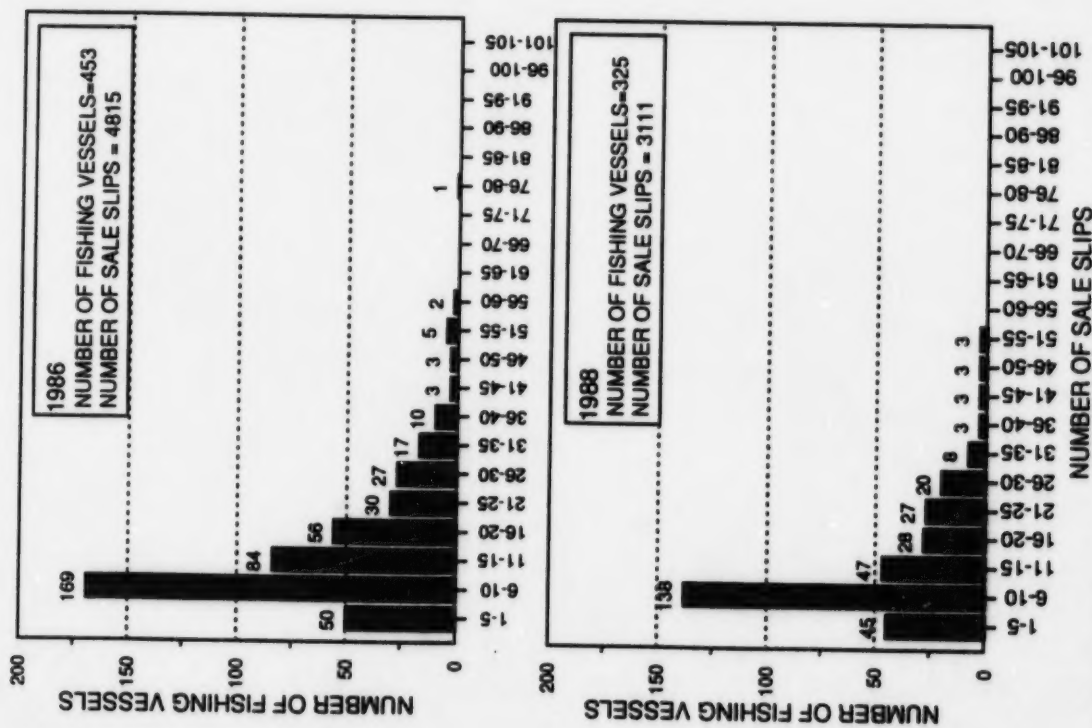


FIGURE 10. Fishing effort as indicated by frequency distributions of fishing vessels as a function of the number of standard sale slips reported, from 1986 to 1989 (all landing types combined).

Appendix I. Scallop landings, landed values and price/kg by statistical district, and landing type, from 1968 to 1989.
(n = number of monthly reports, sale slip types were not indicated).

1968

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1	1,154.4	7					2,475	2.12				
2												
3												
10												
11	40,084.5	12	700,528.5	11			83,855	1.99	112,320	0.17		
12	7,132.9	7					15,725	2.21				
13	4,582.7	5					10,125	2.21				
14												
45												
46	70.3	3					145	2.04				
63												
64												
65	2,524.3	1					4,335	1.72				
66												
67			2,805.5	1								
68												
70												
71												
72												
73												
75												
76	80,840.6	20	1,980,579.4	15			148,610	2.05	290,205	0.15		
77	2,159.1	6	208,277.2	7			5,260	2.27	29,985	0.15		
78	13,932.3	15	599,566.0	13			21,745	1.87	83,745	0.15		
80	22,759.4	21	1,725.9	1			40,795	1.85	285	0.17		
82	33,346.4	11	885,622.2	18			67,575	1.69	112,730	0.13		
83	9,691.2	9	129,763.6	5			16,225	1.70	14,135	0.11		
85												
86	5,146.1	5	102,704.1	4			11,175	2.17	12,980	0.12		
87	77,003.1	22	234,948.9	13			168,570	2.17	30,525	0.13		
88	836.9	5	108,945.6	18			1,835	2.19	12,270	0.12		
92			40,384.0	2					4,860	0.12		
93												
95												
96												

* = missing information

Appendix I (continued). Scallop landed, landing values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of monthly reports, sale slip types were not indicated).

1970

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1	805.1	3				
2	38.6	1				
3	2,004.9	4				
10						
11	138,837.9	80				
12	5,350.2	7				
13	1,610.3	6				
14						
45	97.5	1				
46	34.0	1				
63						
64	8,294.1	7	753.0	2		
65	7,838.2	14	548.9	2		
66						
67						
68	18,860.7	10	52.2	1		
70	19,940.3	4				
71						
72						
73	14,603.7	5				
75	3,957.7	5				
76	128,849.6	22				
77	213.2	2				
78	1,283.7	10				
80	97,288.1	30				
82	54,649.7	28				
83	12,170.1	12				
85	163.3	2	494.4	2		
86	31,085.2	10				
87	139,928.8	35	315.3	1		
88	8,754.5	18				
92	471.7	2				
93						
95						
96						

Appendix I (continued). Scallop landings, landed values and price/kg by statistical district, and landing type, from 1968 to 1989, (n = number of monthly reports, sale slip types were not indicated).

1971

1971

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1	741.6	3				
2						
3	81.6	2				
10						
11	90,264.1	79				
12	15,669.6	9				
13	5,615.6	12				
14						
45						
46						
63	8,693.2	7				
64	9,852.2	8				
65	3,102.6	10	319.8	1		
66						
67	537.5	3				
68	26,365.5	15				
70						
71						
72						
73	7,425.4	6				
75	3,095.8	5				
76	101,477.1	25				
77	256.6	2				
78	2,227.2	10				
80	101,994.4	23				
82	47,632.5	30				
83	12,247.2	10				
85						
86	16,322.8	9				
87	123,882.7	38				
88	13,553.6	26				
92	362.9	4				
93						
95						
96						

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989, (n = number of monthly reports, sale slip types were not indicated).

1972

1972

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10						
11	95,691.5	106				
12	16,018.9	9				
13	11,201.7	15				
14						
45						
46	365.1	1				
63	4,805.9	9				
64	10,677.7	10				
65	22,605.2	23				
66						
67	163.3	2				
68	16,252.5	14				
70						
71						
72						
73	26,907.8	16				
75	9,899.8	13				
76	58,596.0	20				
77	93.0	1				
78	1,460.6	8				
80	43,545.6	24				
82	28,257.0	23				
83	9,219.4	9				
85						
86	15,805.7	9				
87	111,937.1	31				
88	25,088.2	43				
92	147.4	3				
93						
95						
96						

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of monthly reports, sale slip types were not indicated).

1973

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2	2,778.3	5				
3	1,437.9	10				
10						
11	43,581.9	28				
12	1,272.3	9				
13	2,837.3	9				
14						
45						
46						
63	4,121.0	5				
64	14,782.8	8				
65	721.2	6				
66						
67	233.6	1				
68	14,283.9	12				
70	6.8	1				
71						
72						
73	11,548.7	4				
75	6,926.5	12				
76	36,916.2	13	678.1	1		
77	1,038.7	2				
78	2,565.1	7				
80	40,272.9	25				
82	19,175.9	13				
83	5,729.0	8				
85	315.3	1				
86	5,109.8	7				
87	86,211.2	30				
88	3,347.6	22				
92						
93						
95						
96						

Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
8,165	3.11				
4,150	2.91				
131,270	3.04				
4,720	3.38				
8,145	2.91				
14,965	3.63				
41,580	2.76				
2,930	4.11				
665	2.85				
41,820	3.03				
25	3.67				
33,060	3.00				
21,010	2.96				
106,375	3.03	65	0.10		
3,160	3.02				
7,630	2.98				
126,145	3.04				
58,880	3.08				
19,000	3.39				
1,065	3.38				
15,015	3.04				
263,110	3.16				
9,880	3.15				

Appendix 1 (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of monthly reports, sale slip types were not indicated).

1974

1974

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10						
11	15,692.3	13				
12						
13	2,899.4	4				
14						
45						
46						
63	5,554.3	9				
64	13,217.9	8				
65	2,773.8	7				
66						
67						
68	15,064.1	12				
70						
71						
72						
73						
75	3,359.9	7				
76	28,023.4	12				
77						
78						
80	7,348.3	10				
82	6,536.4	10				
83	719.0	3				
85						
86						
87	98,671.6	16				
88	2,193.2	7				
92						
93						
95						
96						

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of monthly reports, sale slip types were not indicated).

1975

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2												
3												
10												
11	55,900.1	21					188,535	3.36				
12	111.1	3					365	3.23				
13	2,145.5	6					8,620	3.76				
14			256.3	1								
45												
46	682.7	1					2,255	3.30				
63	3,365.7	14					15,650	4.68				
64	12,467.2	7					46,955	3.98				
65	1,386.7	7					5,435	3.97				
66												
67												
68	13,914.2	15					49,005	3.90				
70												
71												
72												
73	2,304.3	4					7,550	3.30				
75	3,583.4	6					11,560	3.34				
76	9,228.5	13					30,215	3.21				
77	61.2	1					255	4.16				
78												
80	30,295.9	20					94,780	3.29				
82	9,763.7	13					37,630	4.02				
83	5,202.8	12					15,100	3.21				
85												
86	5,797.0	2					19,170	3.31				
87	116,411.9	32					406,170	3.51				
88	4,849.0	10					16,150	3.17				
92	11.3	1					35	3.09				
93												
95												
96												

1975

* - Missing information

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of monthly reports, sale slip types were not indicated).

1976										1976									
Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg	Live (\$)
1																			
2	29.5	1																	
3																			
10																			
11	31,795.1	21					111,305	3.74											
12	138.3	1					445	3.22											
13	4,531.5	8					19,310	3.83											
14	678.1	3					2,805	3.93											
45																			
46																			
63	4,411.3	17					21,045	4.71											
64	5,704.0	11					25,055	4.36											
65	1,918.7	6					8,160	4.29											
66																			
67	344.7	2					1,130	3.27											
68	13,471.9	12					52,080	4.18											
70																			
71																			
72																			
73	678.1	3					2,615	3.86											
75	14,492.5	8					56,490	3.82											
76	40,728.7	16					158,510	3.91											
77	4,331.9	4					17,370	4.02											
78	15,152.5	13					57,195	3.78											
80	47,709.6	28					188,540	3.97											
82	82,090.3	25					317,925	3.87											
83	13,310.9	17					50,925	3.72											
85																			
86	28,581.3	12	4,288.8	1			96,160	3.40	13,245	3.09									
87	50,791.9	27					180,805	3.54											
88	2,438.1	11					9,825	3.92											
92	793.8	4					2,980	3.76											
93																			
95																			
96																			

* - missing information

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of sale slips, sale slip types were not indicated).

1977

1977

1977

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roce (kg)	n (roce)
1						
2						
3						
10						
11	13,494.6	146				
12	1,120.4	12				
13	1,247.4	6				
14						
45						
46	546.6	1				
63	3,209.2	25				
64	362.9	6	303.9	14		
65	1,521.8	9				
66						
67	197.3	1				
68	7,439.0	68				
70	2,088.8	29				
71						
72						
73	328.9	1				
75	7,997.0	34				
76	18,395.7	41				
77	4,141.4	22				
78	11,208.2	71				
80	44,178.4	129				
82	20,754.5	95				
83	11,282.9	32				
85						
86	21,305.6	72				
87	21,017.6	187	18,989.6	26		
88						
92						
93						
95						
96						

Districts	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roce (\$)	\$/kg
	44,030	3.08				
	3,710	3.07				
	5,420	4.06				
	2,405	4.40				
	14,915	4.53				
	1,590	4.29	1,360	4.51		
	6,645	4.38				
	785	3.98				
	27,670	3.81				
	8,095	3.90				
	1,075	3.27				
	24,640	3.06				
	57,205	3.10				
	13,480	3.25				
	35,595	3.20				
	138,045	3.14				
	61,235	2.98				
	37,450	3.04				
	69,110	3.22				
	66,885	3.18	6,610	1.37		

1978

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10						
11	18,128.1	591				
12	108.9	4				
13	2,424.5	51				
14						
45						
46						
63	3,143.4	18				
64	1,034.2	6				
65	582.9	7				
66						
67						
68	5,538.5	222				
70	3,068.5	167				
71						
72						
73	1,363.1	1				
75	6,112.3	105				
76	25,585.3	219				
77	11,387.6	235				
78	12,004.5	229				
80	100,662.4	1699				
82	9,607.2	170				
83	7,107.9	98				
85						
86	22,673.2	505				
87	36,440.0	663				
88	395.6	6				
92	455.9	1				
93						
95						
96						

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of sale slips, sale slip types were not indicated).

1979

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10						
11	13,251.9	497				
12	528.4	43				
13	767.0	25				
14						
45	621.4	18				
46	646.4	17				
63	2,685.3	36				
64	1,589.9	33			11.3	1
65	292.6	11				
66						
67	619.2	3			297.1	3
68	6,300.5	242			90.7	4
70	2,351.9	113				
71						
72						
73						
75	3,002.8	50				
76	20,747.7	268				
77	10,891.8	268				
78	10,194.7	417			181.4	6
80	42,227.9	1285			5,463.6	257
82	26,138.7	475				
83	9,251.2	277				
85	156.5	13				
86	24,741.6	921				
87	54,082.7	1162				
88	1,217.9	29				
92	263.1	2				
93						
95						
96						

1979

Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
96,055	6.88				
3,565	6.64				
6,315	7.47				
4,470	7.21				
4,795	7.21				
19,100	7.28				
12,675	7.83			45	3.97
2,010	7.35				
5,385	7.75				
41,490	6.90			1,765	5.91
15,025	6.67			530	5.82
19,410	6.60				
141,130	6.76				
74,060	6.82				
69,755	6.88				
286,085	6.74			1,020	5.62
178,765	6.85			30,000	5.66
62,655	6.88				
1,125	7.28				
182,635	7.39				
383,400	7.10				
8,305	6.85				
1,790	6.62				

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of sale slips, sale slip types were not indicated).

1980

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2												
3												
10												
11	17,282.2	474					154,490	8.74				
12							5,710	8.89				
13	664.5	41					22,010	8.81				
14	2,404.8	2					1,770	8.62				
45	204.1	8					835	8.99				
46	93.0	5					6,610	9.76				
63	639.6	4					43,660	8.47			40	2.21
64	5,007.7	86	11.1	1	18.1	2	1,685	9.17				
65	183.7	1										
66												
67	2,385.9	84					19,380	8.14				
68	4,957.8	280			3,499.5	133	37,835	8.25			19,775	5.71
70	2,567.4	144					16,650	6.99				
71												
72												
73												
75	1,780.4	5					14,645	8.18				
76	21,707.0	373					178,465	8.17				
77	573.8	11					4,615	8.29				
78	6,178.0	126					50,030	8.06				
80	40,814.9	1106					323,360	7.91				
82	23,675.7	491					190,465	8.02				
83	5,493.1	142					42,870	8.01				
85	326.6	6					2,500	7.58				
86	25,447.0	618					214,220	8.41				
87	41,665.4	933					349,590	8.28				
88	1,764.5	10					14,370	7.94				
92												
93												
95												
96												

* = missing information

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of sale slips, sale slip types were not indicated).

1981

1981

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2												
3	618.7	17					5,204	8.57				
10												
11	43,884.0	1087					416,056	9.26				
12	2,629.5	67					23,625	9.16				
13	4,585.0	151					43,346	9.44				
14												
45	342.0	9					3,016	8.93				
46	213.6	2					1,884	8.82				
63	1,857.5	29					24,570	13.23				
64	2,880.8	50					30,385	10.20				
65	1,148.5	7					13,168	11.57				
66												
67	2,017.2	17					22,235	11.02				
68	6,638.4	476			10,184.2	423	68,779	10.39			62,963	6.20
70	825.1	40			1,152.1	37	8,648	10.49			7,324	6.37
71												
72												
73	6,305.5	127					63,416	10.04				
75	1,677.9	36					16,906	10.08				
76	26,721.1	567					265,492	9.93				
77	16,850.3	353					169,977	10.09				
78	5,207.8	128					56,864	10.91				
80	60,906.7	1764					623,338	10.24				
82	39,521.3	870					400,470	10.10				
83	6,303.7	183					63,480	10.00				
85	284.0	13					2,423	9.25				
86	31,617.7	596					303,427	9.62				
87	92,570.6	1569					806,736	9.74				
88	7,661.3	268					74,607	9.78				
92	1,356.3	23					14,204	10.47				
93	2,547.0	63					26,584	10.42				
95	43.1	2					436	10.21				
96												

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1982

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2												
3												
10												
11	16,715.1	802					137,763	12.09				
12	164.2	8					1,189	11.57				
13	1,013.8	42					7,538	17.05				
14												
45	373.8	13					3,296	6.46				
46	837.8	21					7,122	12.95				
63	195.1	11					1,935	14.95				
64	3,681.0	41					33,834	13.46				
65												
66												
67												
68	14,024.4	667					109,067	19.30			2,175	3.88
70	1,614.8	96					12,742	11.18			1,273	4.92
71												
72												
73	150.6	8					1,486	14.61				
75	2,612.3	38					20,161	5.67				
76	16,701.1	321					115,727	15.26				
77	4,170.4	67					32,715	11.52				
78	1,902.9	41					13,936	11.03				
80	36,137.4	1179					252,298	15.30				
82	30,113.1	725					222,920	16.69				
83	6,432.5	190					46,964	11.48				
85	4,014.8	136					29,394	11.81				
86	32,590.8	666					245,562	11.16				
87	51,377.9	926					382,345	16.62				
88	777.0	18					5,608	5.34				
92	713.5	27					5,574	5.74				
93												
95	318.9	2					2,461	5.67				
96												

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1983

1983

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1	2.3	1					25	10.67				
2	4,148.8	161					53,681	12.95				
3	2,754.3	138					36,432	13.23				
10	1,656.6	59					21,997	13.28				
11	15,028.7	798					180,748	12.03				
12	1,653.4	108					19,548	11.82				
13	4,291.1	112					49,835	11.61				
14	163.3	4					2,062	12.63				
45	22.7	1					325	14.32				
46	1,760.8	35					21,823	12.39				
63	593.8	13					7,501	12.63				
64	5,861.8	52					77,604	13.24				
65	540.7	15					7,152	13.23				
66												
67												
68	14,576.4	200			1,684.6	33	199,055	13.66			4,162	9.58
70	4,721.1	182			644.6	27	65,214	13.81			4,445	12.09
71	12.7	1					182	14.33				
72												
73	3,630.6	143					45,863	12.64				
75	7,780.2	215					84,290	10.86				
76	23,550.0	406					253,629	10.77				
77	11,027.9	104					121,960	11.06				
78	3,003.3	18					33,105	11.02				
80	22,168.3	656					241,339	10.89				
82	54,368.5	1162					605,035	11.12				
83	11,146.4	305					117,092	10.50				
85	707.6	32					7,412	10.47				
86	27,758.5	754					365,865	12.82				
87	76,163.0	2016					924,275	12.14				
88	7,494.8	222					100,300	13.38				
92	634.6	18					6,995	11.02				
93	483.5	16					5,219	10.79				
95	122.5	7					1,288	10.51				
96												

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1984

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1			857.3	1		
2	293.0	11				
3	113.9	10	76.2	5		
10	237.7	11	200.5	4		
11	4,077.9	178	564.3	21		
12	37.2	3				
13	2,426.8	83	15.4	1		
14						
45			68.0	2		
46	1,284.6	34				
63	1,149.4	38	392.4	13		
64	9,469.8	96	2,931.0	11		
65	1,890.2	19	494.0	5		
66	2,975.2	65	106.1	7		
67	885.4	21				
68	16,885.7	355	73.0	1		
70	6,227.9	197	9.1	1		
71	90.7	1				
72						
73	3,752.2	112				
75	14,736.1	252	939.9	6		
76	27,700.4	526	44.9	1		
77	2,648.1	29				
78	766.1	16				
80	35,267.9	931	6,693.8	275		
82	37,434.7	846	3,461.9	125		
83	9,378.6	252				
85	2,357.4	84				
86	29,103.0	702	124.7	3		
87	17,699.5	456	1,891.1	36		
88	1,851.1	54	148.3	4		
92	2,300.7	58	509.5	5		
93	62.6	6				
95	232.2	9	73.9	2		
96	269.0	6				

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1985

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10	19.5	1				
11	1,006.5	41				
12						
13						
14						
45						
46						
63	1,448.8	58				
64	16,571.8	162			409.1	10
65	1,748.2	16				
66	4,399.5	41	597.4	6	59.1	2
67	2,824.1	47			112.0	1
68	6,046.0	238			1,638.9	55
70	5,488.5	172			61.2	2
71						
72						
73	3,275.9	191			758.0	122
75	7,117.0	166				
76	30,738.7	532				
77	3,416.1	35				
78	4,999.6	121				
80	10,105.3	381				
82	64,674.7	1518				
83	4,876.2	204				
85	276.7	13				
86	9,204.5	233				
87	29,803.8	880	249.5	1		
88	558.6	16				
92	3,921.4	78				
93	347.5	9				
95	325.2	8				
96						

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1985

Meat (£)	\$/kg	Live (£)	\$/kg	Roe (£)	\$/kg
215	11.02				
13,072	12.76				
18,759	13.03				
191,609	11.56			3,383	8.27
22,162	11.75				
50,882	11.52	1,317	1.70	495	8.27
32,620	11.48			926	8.27
65,993	10.89			13,537	8.25
62,940	11.40			619	9.92
39,094	11.91			8,330	10.93
82,442	11.80				
346,795	11.22				
39,538	11.57				
57,991	11.57				
113,298	11.18				
810,760	12.56				
61,843	12.61				
3,660	13.23				
111,597	12.12				
378,639	12.64	358	1.43		
6,421	11.63				
50,821	12.85				
4,547	12.93				
4,169	12.81				

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1986

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2												
3												
10	99.8	2					1,210	12.13				
11	3,910.5	121	244.9	2			58,843	15.42	405	1.65		
12	102.5	5					1,243	12.13				
13	1,336.8	40					17,686	13.28				
14	350.6	1					5,025	14.33				
45												
46	34.0	1					525	15.43				
63	281.2	13					3,720	13.23				
64	11,208.9	196					146,110	13.01				
65	4,943.3	40					64,719	13.39				
66	1,779.0	31	9,867.6	32	660.9	15	22,047	12.47	13,105	1.33	6,379	9.37
67	275.3	3					3,519	12.64				
68	2,168.7	132			3,730.9	118	26,017	12.05			30,844	8.27
70	2,499.8	98			84.8	3	31,760	12.74			748	8.82
71	71.2	3			75.3	2	942	13.23			664	8.82
72												
73	2,496.6	117			37.2	4	31,494	12.58			410	11.02
75	5,033.1	109					61,773	12.30				
76	13,572.2	251					153,554	11.32				
77	1,061.4	32					11,700	11.02				
78	385.6	13					4,565	11.83				
80	13,590.8	346					155,085	11.35				
82	34,440.5	880					384,821	11.19				
83	9,011.7	383					100,088	11.15				
85												
86	41,368.8	786					580,864	14.22				
87	38,745.6	885					524,166	13.90				
88	4,884.4	88					73,112	14.67				
92	1,941.9	64					21,476	11.06				
93	133.8	4					1,512	11.85				
95	152.4	3					1,884	12.49				
96	45.4	2					500	11.02				

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

1987

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10						
11	6,213.0	133				
12	79.8	2				
13	873.2	18				
14	88.0	1				
45						
46	230.4	5				
63	244.9	9				
64	10,946.7	244				
65	7,047.6	38				
66	1,051.4	15				
67	347.0	3				
68	1,172.1	84				
70	1,126.3	40				
71						
72						
73	508.5	24				
75	1,697.4	37				
76	15,256.8	304				
77	586.1	16				
78	968.4	25				
80	21,850.8	633				
82	32,409.3	797				
83	10,191.0	404				
85	29.5	1				
86	24,999.3	304				
87	23,141.3	420				
88	2,868.8	55				
92	417.8	11				
93						
95						
96	22.7	1				

1987

Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
77,500	12.30				
1,056	13.23				
12,147	13.56				
1,164	13.23				
2,695	11.68				
3,456	9.06				
154,896	12.28				
97,259	14.30				
14,803	14.18				
4,761	14.33				
15,622	14.21				
15,111	13.46				
6,789	13.27				
22,320	13.23				
195,014	12.64				
7,659	13.45				
12,676	13.14				
283,100	12.89				
370,154	11.37				
119,694	11.79				
374	12.68				
300,177	12.15				
274,251	11.91				
34,582	12.10				
5,169	12.39				
263	11.57				

8.95

Appendix I (continued). Scallop landings, landed values and price/kg for each statistical district, and landing type, from 1968 to 1989. (n = number of standard sale slips, supplementaries A's and B's were not included).

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2	309.8	5				
3						
10	85.7	4				
11	1,544.1	37				
12	45.8	2				
13	452.2	13	56.2	1		
14						
45						
46	76.2	2				
63						
64	8,997.6	130				
65	10,120.7	78				
66	534.8	4				
67						
68	1,033.8	21			127.9	2
70	1,679.3	60				
71						
72						
73	241.8	4				
75	5,814.2	112			618.3	24
76	14,882.0	242			12.2	1
77	1,069.1	16				
78	736.2	16				
80	30,642.5	601	48.1	1	120.2	5
82	23,981.4	546				
83	18,910.6	485				
85						
86	20,533.1	332				
87	17,324.8	333				
88	1,383.8	34				
92						
93						
95						
96						

Meat (£)	\$/kg	Live (£)	\$/kg	Roe (£)	\$/kg
3,244	10.47				
945	11.02				
15,772	10.28				
505	11.02				
5,043	11.11	620	11.02		
840	11.02				
98,006	10.60				
106,224	10.66				
5,895	11.02				
11,555	11.08			1,129	8.82
16,847	9.98				
2,602	10.89				
51,502	8.84			4,907	7.94
132,069	8.91			97	7.94
9,478	8.89				
6,161	8.54				
246,051	8.00	398	8.27	1,007	8.38
207,652	8.72				
161,786	8.54				
211,601	10.27				
198,644	11.37				
17,725	10.71				

Districts	Meat (kg)	n (mean)	Live (kg)	n (live)	Ro _e (/kg)	n (roe)
1						
2						
3	131.1	3				
10						
11	4,143.6	86				
12						
13	207.3	7				
14	7.3	1				
45	10.4	1				
46	89.8	2				
63						
64	10,995.3	186				
65	14,548.8	78				
66	3,077.2	24				
67	6,256.5	50				
68	14,581.4	404				
70	4,823.1	82			11,077.8	236
71						
72						
73	4,661.2	113				
75	7,241.3	48				
76	14,028.0	248				
77	5,980.3	34				
78	3,788.0	58				
80	47,408.5	815				
82	20,081.3	422				
83	19,050.7	489				
85	399.2	15				
86	17,029.5	316				
87	15,782.6	258				
88	580.2	22				
92						
93						
95						
96						

Appendix II. Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

1982

1982

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2	113.4	1					1,250	11.02				
3												
10												
11	10,902.3	21					96,817	8.86				
12												
13												
14												
45	31.3	1					276	8.82				
46												
63	2,803.2	15					29,735	10.61				
64	2,071.1	11					19,089	9.22				
65	272.2	2					2,550	9.37				
66												
67												
68	1,717.3	37			449.1	15	16,147	9.40			2,029	4.52
70	136.1	1					1,305	9.59				
71												
72												
73												
75												
76	1,224.7	4					8,100	6.61				
77												
78												
80	10,669.1	29					74,813	7.01				
82	811.5	15					6,126	7.55				
83	3,966.7	6					30,609	7.72				
85												
86	3,606.1	7					27,750	7.70				
87	4,183.5	31					31,876	7.60				
89												
92												
93												
95												
96												

Appendix II (continued). Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

1983

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2	680.4	2					9,000	13.23				
3												
10	659.5	13					8,998	13.64				
11	11,676.1	20					149,206	12.78				
12												
13	1,743.6	14					26,886	15.42				
14												
45												
46	644.1	17					8,750	13.58				
63												
64	1,859.8	21					25,652	13.79				
65												
66												
67												
68	32,831.4	4					471,550	14.32				
70												
71												
72												
73	45.4	2					600	13.22				
75	1,814.4	1					20,000	11.02				
76	7,894.5	13					87,020	11.02				
77	1,066.9	2					11,760	11.02				
78												
80	451.3	4					4,975	11.02				
82	5,026.4	23					58,916	11.72				
83	1,615.3	6					17,737	10.98				
85												
86	1,470.5	8					19,362	13.17				
87	3,256.4	32					39,785	12.22				
88	587.9	10					7,457	12.66				
92												
93	510.3	2					7,250	14.21				
95												
96												

1983

Appendix II (continued). Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

1984

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
1												
2	362.9	2					5,000	13.78				
3	95.3	3					1,313	13.78				
10	181.4	4					2,500	13.78				
11	5,352.5	24	*(3,999.8)	*(1)			73,750	13.78	*(49,381)	*(12.35)		
12	86.2	3	2,268.0	1			1,188	13.78	37,500	16.53		
13	136.1	2					1,875	13.78				
14												
45												
46	755.2	10					10,406	13.78				
63												
64												
65												
66												
67												
68												
70												
71												
72												
73												
75												
76												
77												
78							89,219	13.78				
80	6,475.1	8										
82												
83												
85												
86			907.2	1					12,000	13.23		
87	2,404.1	11	513.9	3			33,125	13.78	1,398	9.26		
88	136.1	1					1,875	13.78				
92												
93	816.3	3					11,156	13.78				
95												
96												

* = Supplementary A scallop landings.

Appendix II (continued). Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

1986

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)
1						
2						
3						
10	2,098.4	4				
11	28,254.4	15				
12	816.5	1				
13	1,251.9	6				
14						
45						
46	1,506	5				
63						
64	1,716.9	8				
65	453.6	1				
66	1,814.4	3				
67						
68	657.7	4				
70						
71						
72						
73						
75						
76	1,814.4	6				
77	3,991.7	3				
78	589.7	2				
80	4,082.4	8				
82	8,958.6	8				
83	2,041.2	2				
85						
86	3,628.8	3				
87	6,667.9	12				
88						
92	45.4	1				
93						
95						
96						

Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)	\$/kg
28,503	13.23				
385,260	14.22				
12,600	15.43				
18,883	15.16				
21,585	13.89				
25,483	14.88				
6,000	13.23				
22,000	12.13				
9,425	14.33				
22,000	12.13				
47,350	12.31				
6,500	11.02				
45,000	11.02				
107,750	11.85				
24,750	12.13				
51,125	13.78				
93,575	14.51				
550	12.13				

1986

Appendix II (continued). Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

Districts	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	1987				
							Meat (\$)	\$/kg	Live (\$)	\$/kg	Roe (\$)
1											
2	521.6	2					8,050	15.43			
3											
10	680.4	2					9,000	13.23			
11	6,395.8	9					81,700	12.49			
12	228.8	1					2,750	12.13			
13											
14											
45											
46	1,716.9	8					23,285	14.19			
63											
64	2,200.0	8					33,950	9.09			
65	3,390.7	9					52,025	9.19			
66											
67											
68	1,633.0	4					22,950	8.96			
70	453.6	3					6,000	9.19			
71											
72											
73	1,111.3	4					14,700	9.09			
75	907.2	2					12,000	13.23			
76	1,859.8	5					24,800	13.23			
77	14,197.7	4					201,175	13.64			
78	79.4	1					1,050	13.23			
80	4,479.3	7					59,250	13.23			
82	5,715.4	6					69,750	12.68			
83	5,670.0	7					75,125	13.07			
85											
86	3,175.2	4					38,500	12.13			
87	3,991.7	13					47,500	11.91			
88											
92											
93											
95											
96											

Appendix II (continued). Supplementary B scallop landings, landed values and price/kg for each statistical district and landing type, from 1982 to 1989. (n = number of supplementary B sale slips).

District	Meat (kg)	n (meat)	Live (kg)	n (live)	Roe (kg)	n (roe)	1989			
							Meat (\$)	\$/kg	Live (\$)	\$/kg
1										
2	362.9	4					4,613	12.81		
3	317.5	2					2,975	9.37		
10	870.9	3					9,450	10.29		
11	12,310.7	9					125,750	10.17		
12	2,757.9	3					29,650	10.66		
13	1,156.7	3					13,000	11.76		
14										
45										
46	1,036.5	6					11,213	10.29		
63										
64	2,449.4	8					29,910	12.32		
65	10,427.4	67					102,754	9.71		
66	1,701.0	36					18,750	11.02		
67	226.8	8					2,500	11.02		
68	2,721.6	2					24,000	8.82		
70	4,309.2	6					42,000	9.74		
71										
72										
73	1,270.1	6					13,900	10.84		
75	2,767.0	4					27,750	10.20		
76	18,370.8	6					192,250	10.66		
77	9,072.0	3					85,250	9.92		
78	907.2	9					9,000	9.92		
80	14,265.7	10					125,900	8.82		
82	3,175.2	1					29,050	9.15		
83										
85	136.1	1					1,350	9.92		
86	6,804.0	4					73,250	10.06		
87	8,142.1	22					83,800	10.00		
88										
92										
93										
95										
96										

Appendix III. Number of fishing vessels reported as a function of the number of sale slips, by fishing area, from 1986 to 1989.

1986

Number sale slips	Outside Gulf Region	Fishing area 21	Fishing area 22	Fishing area 23	Fishing area 24
1-5	10	3	12	4	31
6-10	33	21	51	6	89
11-15	13	11	31		40
16-20	9	14	18	3	21
21-25	4	9	9		12
26-30	3	4	17		6
31-35	4		10		7
36-40	5	2	4		4
41-45	4		2		1
46-50	1		1		2
51-55	3		3		2
56-60		1			1
61-65	4				
66-70	1				
71-75	2				
76-80	3				1
81-85	2				
86-90	3				
91-95					
96-100	1				
101-105	1				
Total	106	65	158	13	217

1987

Number sale slips	Outside Gulf Region	Fishing area 21	Fishing area 22	Fishing area 23	Fishing area 24
1-5	7	3	13	1	56
6-10	29	21	51		105
11-15	8	9	24	1	25
16-20	4	5	18		9
21-25	3	1	16		3
26-30	4	3	14		3
31-35	3	1	10		1
36-40	3		5		1
41-45	3		3		2
46-50	8		2		
51-55	3		1		
56-60		1	1		
61-65	1	1			
66-70	2	1	2		
71-75	2				
76-80	1				
81-85					
86-90	1				
91-95					
96-100	1				
101-105					
Total	83	46	160	2	205

Appendix III (continued). Number of fishing vessels reported as a function of the number of sale slips, by fishing area, from 1986 to 1989.

1988

Number sale slips	Outside Gulf Region	Fishing area 21	Fishing area 22	Fishing area 23	Fishing area 24
1-5	3	2	11		32
6-10	9	22	45		71
11-15	10	8	25		14
16-20	10	5	17		6
21-25			21		6
26-30	3	2	15		3
31-35	1		7		1
36-40	2		3		
41-45	1		3		
46-50	4	1	2		
51-55	1		3		
56-60	1				
61-65					
66-70	1				
71-75					
76-80	1				
81-85					
86-90					
91-95					
96-100					
101-105					
Total	47	40	152	0	133

1989

Number sale slips	Outside Gulf Region	Fishing area 21	Fishing area 22	Fishing area 23	Fishing area 24
1-5	1	10	12		19
6-10	3	20	46		54
11-15	2	16	32		20
16-20		7	24		7
21-25		4	18		2
26-30	1	2	11		1
31-35		4	5		3
36-40	1	3	5		
41-45		4	1		1
46-50		4	2		1
51-55		3	1		
56-60		1	1		
61-65					
66-70	1				
71-75	1		1		
76-80			1		
81-85					
86-90					
91-95					
96-100					
101-105					
Total	10	78	160	0	108

Appendix IV. Number of fishing vessels reported as a function of the number of sale slips, by province, from 1986 to 1989.

1986					1987				
Number sale slips	Outside Gulf Region	Nova Scotia	New Brunswick	Prince Edward Island	Number sale slips	Outside Gulf Region	Nova Scotia	New Brunswick	Prince Edward Island
1-5	10	13	11	27	1-5	7	17	15	42
6-10	33	39	69	58	6-10	29	33	68	76
11-15	13	8	33	41	11-15	8	4	29	25
16-20	9	1	27	27	16-20	4	2	20	9
21-25	4	1	14	15	21-25	3	1	7	12
26-30	3	1	6	19	26-30	4	2	3	16
31-35	4		1	18	31-35	3		4	8
36-40	5		2	8	36-40	3	1	3	2
41-45	4			3	41-45	3	1		4
46-50	1			3	46-50	8		1	1
51-55	3	1		4	51-55	3		1	
56-60			1	1	56-60			1	1
61-65	4				61-65	1		1	
66-70	1				66-70	2		1	2
71-75	2				71-75	2			
76-80	3	1			76-80	1			
81-85	2				81-85				
86-90	3				86-90	1			
91-95					91-95				
96-100	1				96-100	1			
101-105	1				101-105				
Total	106	65	164	224	Total	83	61	154	198

Appendix IV (continued). Number of fishing vessels reported as a function of the number of sale slips, by province, from 1986 to 1989.

1988						1989					
Number sale slips	Outside Gulf Region	Nova Scotia	New Brunswick	Prince Edward Island		Number sale slips	Outside Gulf Region	Nova Scotia	New Brunswick	Prince Edward Island	
1-5	3	4	11	30		1-5	1	9	21	10	
6-10	9	14	57	67		6-10	3	14	57	50	
11-15	10	1	26	20		11-15	2	3	43	22	
16-20	10		21	7		16-20			21	17	
21-25		1	13	13		21-25		1	14	9	
26-30	3		10	10		26-30	1	1	8	5	
31-35	1		1	7		31-35		1	8	3	
36-40	2		1	2		36-40	1		4	4	
41-45	1			3		41-45			4	2	
46-50	4		1	2		46-50			5	2	
51-55	1			3		51-55			3	1	
56-60	1					56-60			1	1	
61-65						61-65					
66-70	1					66-70	1				
71-75						71-75	1		1		
76-80	1					76-80				1	
81-85						81-85					
86-90						86-90					
91-95						91-95					
96-100						96-100					
101-105						101-105					
Total	47	20	141	164		Total	10	29	190	127	